

**REMARKS**

The Examiner has rejected claims 1-12 under 35 U.S.C. § 102(b) as being anticipated by the article by Huang et al. (1995) ("Huang"). The Examiner has also rejected claims 1-7 and 10-12 under 35 U.S.C. § 102(b) as being anticipated by the article by Craven et al. (1999) ("Craven"). Claims 1-12 are currently pending. The following remarks are considered by applicant to overcome each of the Examiner's outstanding rejections to current claims 1-12. An early Notice of Allowance is therefore requested.

**I. SUMMARY OF RELEVANT LAW**

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

**II. REJECTION OF CLAIMS 1-12 UNDER 35 U.S.C. § 102(B) BASED ON HUANG**

On page 2 of the Office Action, the Examiner rejects claims 1-12 under 35 U.S.C. § 102(b) as being anticipated by Huang. This rejection is respectfully traversed and believed overcome in view of the following discussion.

With respect to this rejection, the Examiner contends that Huang discloses "the claimed plasmids of a molecular clone of HIV-1 containing truncation and substitution mutation in the PTAP budding mediating motif, wherein each codons, P, T, A, P, or the first two codons, PP, as well as the surrounding codons, are deleted (page 6813, Figure 2)", and that the invention of the current application is therefore anticipated. However, this misconstrues the teachings of Huang.

**Claim 1**

Claim 1 states:

"A DNS molecule comprising a nucleic acid comprising a **deletion mutation** of the budding mediating motif of a viral protein encoded by the nucleic acid, wherein the viral protein is associated with the virus budding process." (emphasis added)

However, Huang teaches “[a] 4-amino-acid **substitution mutation** (PTAP-) in the highly conserved PTAP sequence....” Huang, P. 6811, Col. 2 (slightly below middle). As such, Huang teaches a substitution of amino acids, and not a deletion as claimed. Specifically, the amino acid sequence LIRL was substituted for PTAP. Huang, P. 6812, Fig. 1 (see row labeled PTAP-). Claim 1, on the other hand, specifies a deletion mutation. This is where the amino acids are deleted rather than substituted. Therefore, Huang does not disclose all of the limitations of Claim 1.

As such, Applicants respectfully assert that Examiner has failed to establish a prima facie case of anticipation of independent Claim 1, and corresponding claims 2-12 because they are dependant from independent Claim 1. Therefore, Applicants respectfully request that Examiner remove the rejection of claims 1-12 under 35 U.S.C. § 102(b) as being anticipated by the article by Huang et al. (1995).

### **Claim 2**

Claim 2 is dependent upon Claim 1. As Claim 1 is allowable, so must be Claim 2. In addition, Claim 2 states:

“The DNA molecule of claim 1, wherein the budding mediating motif comprises an amino acid sequence selected from the group consisting of PTAP (SEQ ID NO: 1), PPXY (SEQ ID NO: 2), YXXL (SEQ ID NO: 3) and a combination thereof.”

As discussed above, Huang does not disclose a deletion mutation of amino acid sequence PTAP, but instead discloses a substitution mutation where LIRL is substituted for PTAP. As such, Applicants respectfully assert that Examiner has failed to establish a prima facie case of anticipation of Claim 2. Therefore, Applicants respectfully request that Examiner remove the rejection of claims 2 under 35 U.S.C. § 102(b) as being anticipated by the article by Huang et al. (1999).

**III. REJECTION OF CLAIMS 1-7 AND 10-12 UNDER 35 U.S.C. § 102(B) BASED ON CRAVEN**

On page 3 of the Office Action, the Examiner rejects claims 1-7 and 10-12 under 35 U.S.C. § 102(b) as being anticipated by Craven. This rejection is respectfully traversed and believed overcome in view of the following discussion.

With respect to this rejection, the Examiner contends that Craven discloses “an SIV-derived vector containing deletion mutations in the PPPY motif in the matrix protein of Vesicular Stomatitis Virus, a member of the rhabdovirus family”, and that the invention of the current Application is therefore anticipated. However, this misconstrues the teachings of Craven.

**Claim 1**

Claim 1 states:

“A DNS molecule comprising a nucleic acid comprising a **deletion mutation** of the budding mediating motif of a viral protein encoded by the nucleic acid, wherein the viral protein is associated with the virus budding process.” (emphasis added)

However, Craven teaches a substitution mutation of PPPA, or APPY, for PPPA. Craven, P. 3360, Col. 2 (under heading “Point mutations in the PPPY motif”). As such, Huang teaches a substitution of one amino acid for another. Either the “Y” in the PPPY motif is substituted with an “A”, or the first “P” in the PPPY motif is substituted with an “A”. Claim 1, on the other hand, specifies a deletion mutation. This is where the amino acids are deleted rather than substituted. Therefore, Craven does not disclose all of the limitations of Claim 1.

As such, Applicants respectfully assert that Examiner has failed to establish a prima facie case of anticipation of independent Claim 1, and corresponding claims 2-7 and 10-12 because they are dependant from independent Claim 1. Therefore, Applicants respectfully request that Examiner remove the rejection of claims 1-12 under 35 U.S.C. § 102(b) as being anticipated by the article by Craven et al. (1999).

**Claim 2**

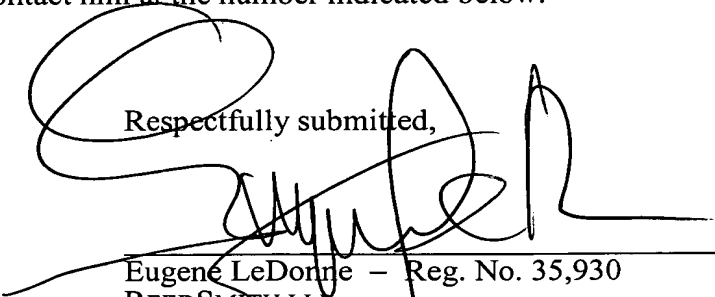
Claim 2 is dependent upon Claim 1. As Claim 1 is allowable, so must be Claim 2. In addition, Claim 2 states:

"The DNA molecule of claim 1, wherein the budding mediating motif comprises an amino acid sequence selected from the group consisting of PTAP (SEQ ID NO: 1), PPXY (SEQ ID NO: 2), YXXL (SEQ ID NO: 3) and a combination thereof."

As discussed above, Craven does not disclose a deletion mutation of an amino acid sequence, but instead discloses a substitution mutation where one amino acid in a sequence is substituted for another. Furthermore, Craven does not disclose a deletion PTAP, PPXY, or YXXL. Rather, Craven teaches to the sequence PPPY. As such, Applicants respectfully assert that Examiner has failed to establish a prima facie case of anticipation of Claim 2. Therefore, Applicants respectfully request that Examiner remove the rejection of claims 2 under 35 U.S.C. § 102(b) as being anticipated by the article by Craven et al. (1999).

Based upon the above remarks, Applicants respectfully request reconsideration of this application and its early allowance. Should the Examiner feel that a telephone conference with Applicants' attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,



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